

HOUSING FOR TEMPERATURE SENSING ASSEMBLIES IN A THERMOMETER

ABSTRACT OF THE DISCLOSURE

5 A platinum resistance thermometer has an
outer housing with a bore that receives a temperature
sensor assembly including a mandrel having a sensing
section with a platinum wire wound thereon and
supported in the bore with a non-cohesive powder
10 material that will distribute stresses caused by
differential thermal expansion between the housing
and the temperature sensor assembly. A second portion
of the mandrel is supported in the bore with a rigid
epoxy to mechanically support the sensor assembly
15 with the sensing section cantilevered from the rigid
epoxy.